

LISTING OF CLAIMS

1. (Currently Amended) A system for cooling a sealed portion of a flexible container, the system comprising:

a transferring arrangement for transferring one or more containers;

a platform constructed and arranged to revolve about a shaft and to receive one or more containers thereon; and

a plurality of cooling arrangements comprising

one or more gripping mechanisms for gripping the containers, and

one or more cooling mechanisms for cooling one or more sealed portions of the containers;

wherein the cooling arrangements are constructed and arranged to cool the sealed portions of the containers while the containers are being transferred, wherein the cooling arrangements comprise:

a pair of gripping components constructed and arranged to secure the sealed portion therebetween,

a supply mechanism for providing a cooling fluid to at least one cooling component,

a removal mechanism for removing the cooling fluid from at least one cooling component, and

wherein the removal mechanism removes the cooling fluid from the cooling component after the cooling fluid has thermally interacted with the gripping components.

2. (Currently Amended) The system according to claim 1, wherein the cooling fluid flows within the gripping components and thermally interacts with the sealed portions~~further comprising a platform constructed and arranged to revolve about a shaft and to receive one or more containers thereon.~~

3. (Cancelled)

4. (Currently Amended) The system according to claim 13, wherein the cooling arrangements further comprise a discharge mechanism for discharging the cooling fluid from the cooling arrangement.

5. (Cancelled)

6. (Currently Amended) The system of claim 13, wherein ~~the a~~ platform is constructed and arranged to revolve about a shaft and wherein the supply mechanism and the removal mechanism are at least partially within the shaft.

7. (Currently Amended) The system of claim 13, wherein each of the supply mechanism and the removal mechanism comprises a flexible tube.

8. (Currently Amended) The system of claim 13, wherein each of the supply mechanism and the removal mechanism is connected to a cooling component.

9. (Currently Amended) The system of claim 13, wherein the cooling fluid comprises water at a temperature within a range of about 12°C to 20°C.

10. (Original) The system of claim 1, wherein the gripping mechanism comprises a pincer.

11. (Original) The system of claim 1, wherein the gripping mechanism comprises a pincer constructed and arranged to be radially movable.

12. (Original) The system of claim 1, wherein the gripping mechanism comprises:

a pincer arrangement,
a sliding seat constructed and arranged to receive the pincer arrangement,
a roller connected to the pincer arrangement,
a support platform constructed and arranged to support the sliding seat, the support platform comprising a groove for receiving the roller, wherein the roller is slidably movable within the groove.

13. (Original) The system of claim 12, wherein the groove comprises a loop shape having a first portion having a first radius and a second portion having a second radius greater than the first radius, wherein the pincer arrangement is in an extended position when the roller is within the second portion of the groove and the pincer arrangement is in a retracted position when the roller is within the first portion of the groove.

14. (Original) The system of claim 13, wherein the pincer arrangement is constructed and arranged to grasp a container when the pincer arrangement is in the retracted position and further constructed and arranged to release the container when the pincer arrangement is in the extended position.

15. (Original) The system according to claim 1, wherein the cooling arrangements comprise a fixed cooling component and a displaceable cooling component, wherein the displaceable cooling component is selectively displaceable between an open position for receiving a container and a closed position for securing the container between the fixed cooling component and the displaceable cooling component.

16. (Original) The system according to claim 15, further comprising an actuator constructed and arranged to move the displaceable cooling component away from the fixed cooling component.

17. (Original) The system according to claim 16, wherein the cooling assembly further comprises an arm connected to the fixed cooling component; and

the actuator comprises a plurality of cooling rods, each cooling rod connected to at least one other cooling rod;

wherein at least two cooling rods are pivotally connected to the arm and at least one cooling rod is connected to the displaceable cooling component.

18. (Currently Amended) A system for cooling a sealed portion of a container, the system comprising:

a transferring arrangement for transferring one or more containers; and
a plurality of cooling arrangements being constructed and arranged to cool the sealed portions of the containers while the containers are being transferred, the cooling arrangements comprising

one or more gripping mechanisms for gripping the containers, and
one or more cooling mechanisms for cooling one or more sealed portions of the containers;

a fixed cooling component and a displaceable cooling component, wherein the displaceable cooling component is selectively displaceable between an open position for

receiving a container and a closed position for securing the container between the fixed cooling component and the displaceable cooling component;

an arm connected to the fixed cooling component and the actuator comprises a plurality of cooling rods, each cooling rod connected to at least one other cooling rod, wherein at least two cooling rods are pivotally connected to the arm and at least one cooling rod is connected to the displaceable cooling component;

an actuator constructed and arranged to move the displaceable cooling component away from the fixed cooling component;

~~The system according to claim 17, wherein the~~
a platform is constructed and arranged to revolve about a shaft, the system further comprising:

a support beam on the platform at a predetermined distance from the shaft,
a movable support constructed and arranged to be slidably movable along the support ~~guide beam~~, the movable support being connected to at least one cooling rod pivotally connected to the arm, and

a guide mechanism having a first end pivotally connected to the movable support and a second end pivotally connected to the shaft.

19. (Original) The system according to claim 18, wherein the guide mechanism further comprises a guide roller constructed and arranged to connect the guide mechanism to the movable support.

20. (Original) The system according to claim 1, wherein the cooling arrangements are constructed and arranged to transfer the container while cooling the sealed portion of the container.

21. (Currently Amended) The system of claim 12, wherein:
the cooling arrangement comprises a fixed cooling component and a displaceable cooling component, wherein the displaceable cooling component is selectively displaceable between an open position for receiving a container and a closed position for securing the container between the fixed cooling component and the displaceable cooling component; and
wherein the pincer arrangement comprises an open position coinciding with the open position of the displaceable cooling component, and a closed position coinciding with the closed position of the displaceable cooling component.

22. (Currently Amended) A method for cooling a sealed portion of flexible containers, the method comprising:

sealing a flexible container to form a sealed portion;
securing the sealing portion between a pair of gripping components;
flowing a cooling fluid within the gripping components;
cooling the sealed portion by thermally interacting the cooling fluid with the sealed portion;
transferring the flexible container simultaneously while cooling the sealed portion.

23. (Currently Amended) The method according to claim 22, including providing the cooling fluid to the gripping components to flow therewithin, and removing the

~~cooling fluid wherein the cooling the sealed portion comprises providing a cooling fluid and providing an indirect heat exchange between the cooling fluid and the sealed portion.~~

24. (Original) The method according to claim 22, further comprising providing a cooling fluid comprising water having a temperature within a range of about 12°C to 20°C.

25. (Currently Amended) A system for filling flexible containers, the system comprising:

a container sealing arrangement for sealing a flexible container to provide a sealed portion;

a filling arrangement for filling the flexible containers;

a transferring arrangement for transferring the flexible containers, wherein the transferring arrangement comprises:

a cooling mechanism constructed and arranged to cool a portion of the flexible container; wherein the cooling mechanism includes a pair of gripping components constructed and arranged to secure the sealed portion;

a supply mechanism for providing a cooling fluid to the gripping components such that the cooling fluid flows within the gripping components and thermally interacts with the sealed portion and cools the sealed portion.

26. (Currently Amended) A system for cooling a sealed portion of a container, the apparatus comprising:

a platform for supporting one or more containers thereon, the platform constructed and arranged to revolve around a shaft;

a plurality of cooling arrangements comprising
one or more gripping mechanisms for gripping the container, and
one or more cooling mechanisms for cooling one or more sealed portions
of the containers, the cooling mechanisms comprising a plurality of gripping cooling-components
that contact the sealed portion, the gripping cooling-components having a cooling fluid flowing
within;

a supply mechanism for providing the cooling fluid to a cooling
component.

a removal mechanism for removing the cooling fluid from said cooling
component, and

wherein the removal mechanism removes the cooling fluid from said
cooling component after the cooling fluid has thermally interacted with said cooling component;

wherein the cooling arrangements are constructed and arranged to transfer the
containers.